

3. A NOTE ON THE BREEDING HABITS OF FOUR-HORNED ANTELOPE (*TETRACERUS QUADRICORNIS*) IN CAPTIVITY

Specimens of the Fourhorned Antelope or Chowsingha have been received from different parts of Orissa and exhibited at Nandankanan Biological Park, Orissa from time to time. Some notes on the breeding habits of this species observed in this Park are presented here.

So far eleven young have been produced in six births including five twins with an average of 1.83 young per litter. Out of these, 4 were males and 7 were females. The sex ratio of males to females was 1:1.75. The six births were distributed as follows: January, 3; March, 2; and April, 1.

The weight and size at birth of seven young born during 1973 and 1974 were as follows: Weight—from 0.75 to 1.2 kg with an average of 1.04 kg; length from tip to tip—from 42 to 45 cm an average of 43.5 cm and the shoulder height—from 24.5 to 27 cm with an average of 25.2 cm. The one young which weighed 0.75 kg and measured 42 cm at birth died on 13th day.

One female born here on 15-iv-1972 has given birth to a single young for the first time on 12-i-1974 at the age of 1 year, 8 months and 29 days or say 1 year and 9 months. This remained with an adult male throughout this period. Another female received in this Park on 13-v-1971 at an estimated age of about one month gave birth to twin young for the first time on 19-i-1973 at an estimated age of about 1 year and 9 months. This had remained with an adult male from the estimated age of about six months. Taking the gestation period as 8 to 8½ months (Prater 1971) the age of sexual maturity of these two females can be said to be about one year to one year and one month.

One female gave birth thrice during the period from April, 1972 to January, 1974 i.e. 15-iv-1972, 29-iii-1973 and 9-i-1974. So the interparturition interval observed twice in this animal was 347 days and 285 days respectively.

The breeding season is in the hot weather and rains and young are born from October to February (Prater loc. cit.). Asdell (1964) states that in the London Zoo three births had taken place in February and others in May and June and twins were produced in three of the five births. According to Walker *et al.* (1964) mating takes place during the rainy season and the young, one to three in number, are born in January or February.

At birth a fawn of fourhorned antelope weighed 2¼ pounds, measured 15 inches in length and the shoulder height was 10 inches (Shull 1958). The average weight of four young of this species was 1.081 kg, the average length was 46.3 cm and the average shoulder height was 27 cm at birth (Acharjyo & Misra 1972).

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4. OBSERVATIONS ON CONFLICT AMONG MALES OF BLACK RAT *RATTUS RATTUS FRUGIVORUS*

Incidence of mortality in conflict among males of black rat *Rattus rattus* L. is supposedly very low (Barnett 1958). Evidence presented herein, however, suggests that in sub-species *Rattus rattus frugivorus* deaths in such interactions may not be unusual in some situations.

OBSERVATIONS

(1) In aggressive rodents caught together males often fight until one is killed by the time traps are collected (Spillett 1968). The same was observed twice in a total of 132 trappings with multiple-catch wonder traps. An apparently senile male with grey hairs and pathological testis (weight 218 gm) was killed in the trap by a younger male (wt. 192 gm) while on another occasion a healthy male (wt. 146 gm) was found to have died in a fight with one of its own age (wt. 152 gm). This